

Tuesday, 12/18/2007 10:51:15 AM
Kim Johnston

Process Sheet

Customer Number	CU-DAR001 Dart Helicopters Services			Drawing Name	ARM
Estimate Number	36421 ✓			Part Number	D3560044 Rev D
P.O. Number				Drawing Number	D3560 UNDER REVIEW
This Issue	12/18/2007	S.O. No.		Project Number	N/A
Prsht Rev.	NC			Drawing Revision	e D
First Issue	/ /	Type	MACHINED PARTS	Material	
Previous Run	35406			Due Date	10/10/2008
Written By				Qty:	10 Um: Each
Checked & Approved By					
Comment	Est Rev:A	New Issue	07.05.24 EC		
	Est Rev B	ECN 987	07.10.09 EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:	
1.0	M6061T6B0500X05000	6061-T6 Bar .50" x 5.0"	
		Comment: Qty.: 1.3598 f(s)/Unit Total : 13.5975 f(s)	
		6061-T6 Bar 0.50" x 5.00"	
		Batch: M106-747	J.L 08/02/11
2.0	BAND SAW	BAND SAW	
		Comment: BAND SAW	
		Cut blanks 15.500" long	J.L 08/02/11
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1	
		Comment: HAAS CNC VERTICAL MACHINING #1	
		1- Mill as per Folio FA696 Rev: AA & Dwg D3560 Rev: D	(P/L)
		2-C'sink 0.196" hole on manual mill as per dwg D3560	
		3-Deburr per dwg D3560	J.L 08/02/11
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE	
		Comment: INSPECT PARTS AS THEY COME OFF MACHINE	J.L 08/02/11
5.0	QC8	SECOND CHECK	
		Comment: SECOND CHECK	QF 08/02/11 (6)

W/O:

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						6	

Part No: D3560-044 PAR #: NA Fault Category: Prod/Machined Part NCR: Yes No DQA: AD Date: 08/02/11
 QA: N/C Closed: _____ Date: _____

		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/02/11	3	-1 part is scrapped $\phi .507^{+0}_{-0.01}$ are .510 P.C. -operator error, too large of tool bore.	JL	- Sculpt replace QH(N) B# M106747	JL 08/02/11	JL 08/02/11	JL 08/02/11	JL 08/02/11

NOTE: Date & initial all entries

Date: Tuesday, 12/18/2007 10:51:15 AM
User: Kip Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 36421

Part Number: D3560044

Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 D35921 PLATE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

PLATE

B.35331 (2X)

7.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld assembly as per dwg D3560

STEP:

- 1- clean material (buff bracket and bottom of arm with blue pad) SP
- 2- set up bracket and arm on jig SP
- 3- preheat bracket and arm with torch SP
- 4- clean before welding with brush SP
- 5- set up machine to 135 amps SP
- 6- weld across bottom and top ends SP
- 7- reheat with torch (65 deg C) SP
- 8- on one side weld from bottom to top half way SP
- 9- same for other side (half way) SP
- 10- from half way point weld the rest of the first side (ease off pedal near end) SP
- 11- same for remaining side (ease off pedal near end) SP

SP 08.08.15 (X)

8.0 QC5 INSPECT WORK TO CURRENT STEP



INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

9.0 QC9 VISUAL WELDING INSPECTION



VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

HAND FINISHING1



HAND FINISHING RESOURCE #1

(XZ)

AND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SP 08.08.15 (X)

NOTE: Date & Initials Assure these are approved by:
HFI/ORMS/DL/MLY

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

All entries

Date: Tuesday, 12/18/2007 10:51:15 AM
User: Kip Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 36421

Part Number: D3560044

Job Number:



Seq. #: Machine Or Operation:

Description :

11.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

11 08-08-15 2

12.0 D2808

Spacer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Spacer

batch: B37113

Sp 08/08/18 ②

13.0 SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Press bushing in D3560 arm per dwg D3562

Sp 08/08/18 ②

14.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

J 08-08-18 ②

15.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: WO

K 08-08-18

16.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

A 08/08/29 ②

Job Completion



mf 08-08-28

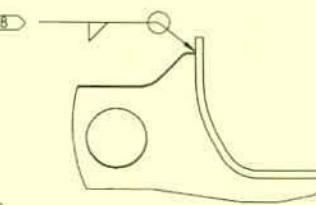
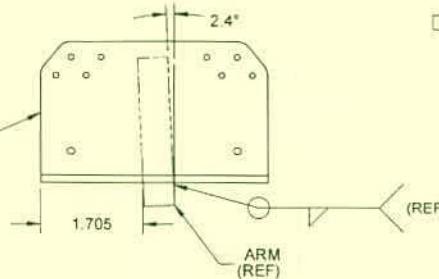
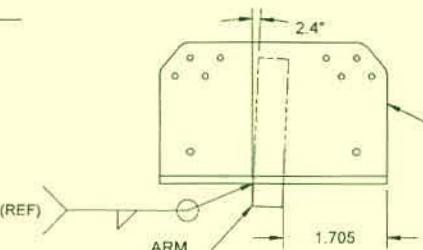
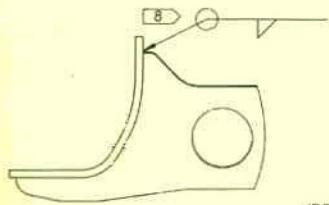
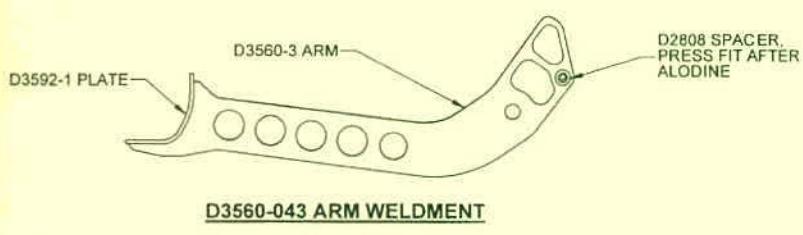
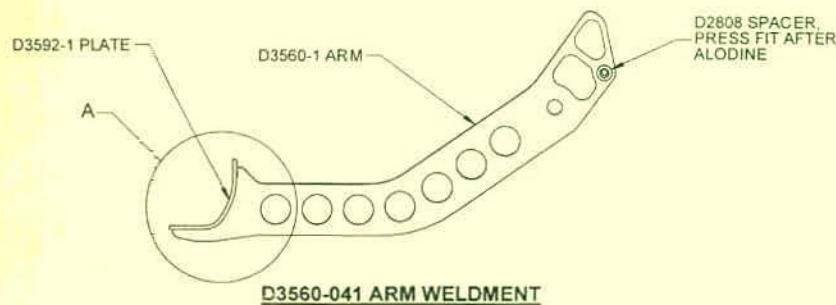
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

RELEASED
07.12.14



DETAIL A
SCALE 1:2

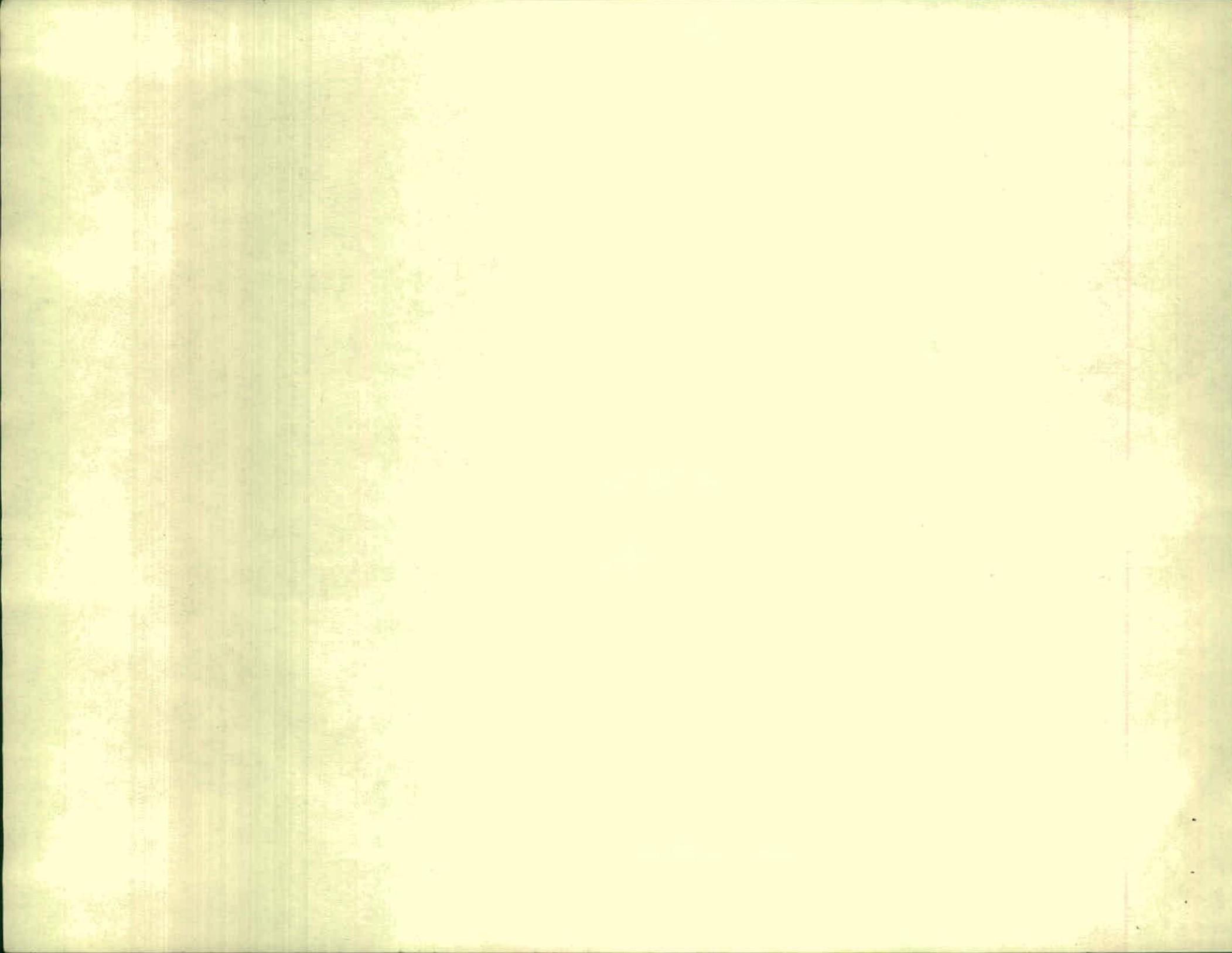
PARTS LIST

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

- NOTES:
 1) MATERIAL: N/A
 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
 6) IDENTIFICATION: N/A
 7) WEIGHT: 1.23 lbs (TYP)
 8) WELDING: PER DART QSI 004

NO.
RETURN TO
ENGINEERING
FOR COMMENT
SUBJECT TO ASSESSMENT
WITHOUT NOTICE
WORK ORDER
AND COPY
RECD COPY
6-10-14

D	ADD D2808 PRESS FIT NOTE: REDRAWN IN SOLIDWORKS		DC	07.11.16
C	REMOVE POWDER COAT		CP	07.06.19
B	REDESIGN AS WELDMENT, ADD POCKETS		CP	07.01.15
A	NEW ISSUE		CP	06.09.25
REV.	DESCRIPTION		BY	DATE
DESIGN	10	DART AEROSPACE LTD		
DRAWN	LC	HAWKSLEY, ONTARIO, CANADA		
CHECKED	2	DRAWING NO.		
MFG. APPR.	EP	D3560 REV. D		
APPROVED	EP	SHEET 1 OF 5		
DE APPR.	EP	TITLE		
DATE	07.11.16	SCALE		
DART AEROSPACE LTD HAWKSLEY, ONTARIO, CANADA				
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DART AEROSPACE LTD	Work Order:
Description: Arm	Part Number: D3560-4
Inspection Dwg: D3560 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

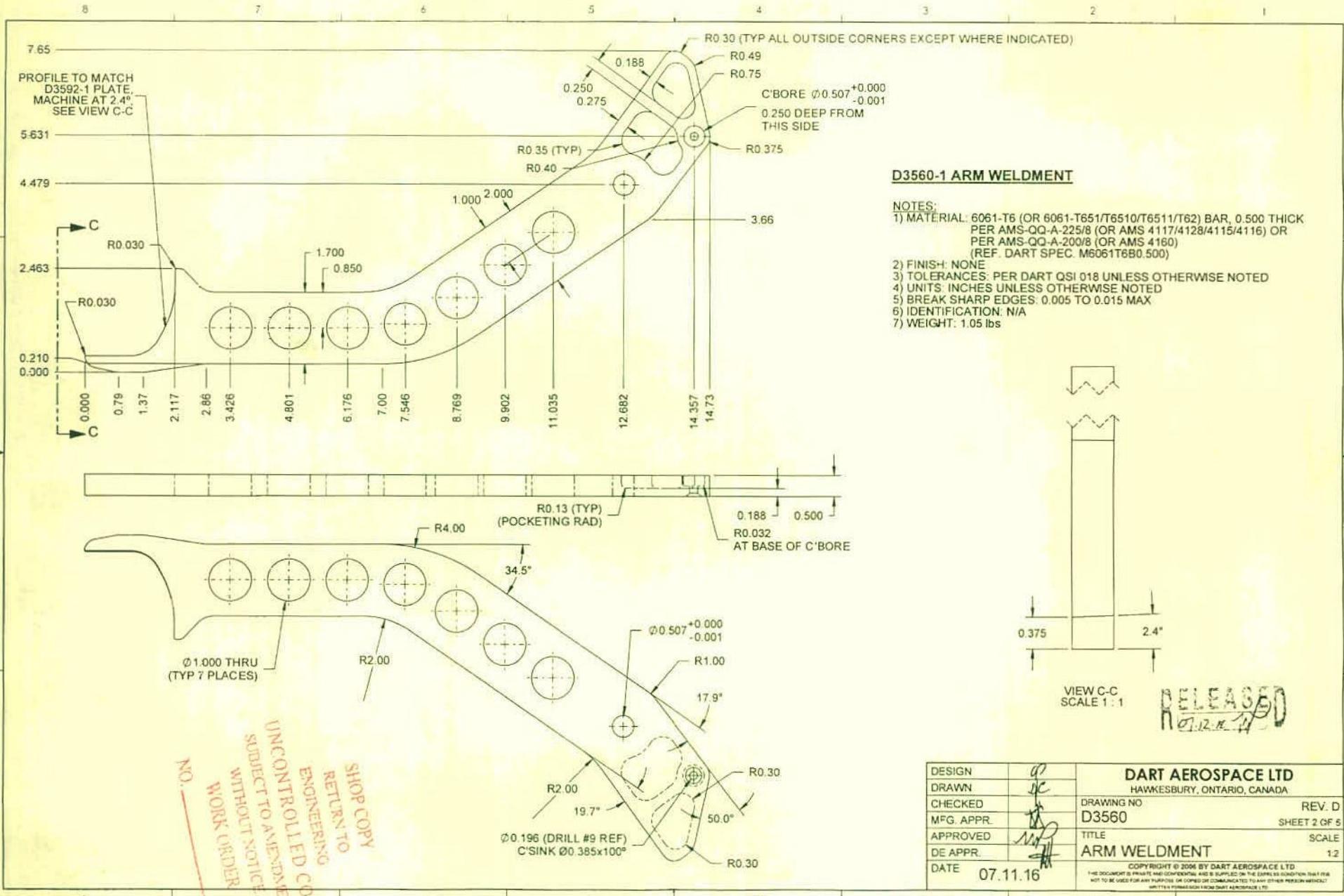
Measured by:	JL
Date:	08/07/11

Audited by: _____
Date: _____

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue	KJ/JLM	
B	07.06.13	Dimensions updated per Dwg Rev B	KJ/JLM	EZ





D3560-1 ARM WELDMENT

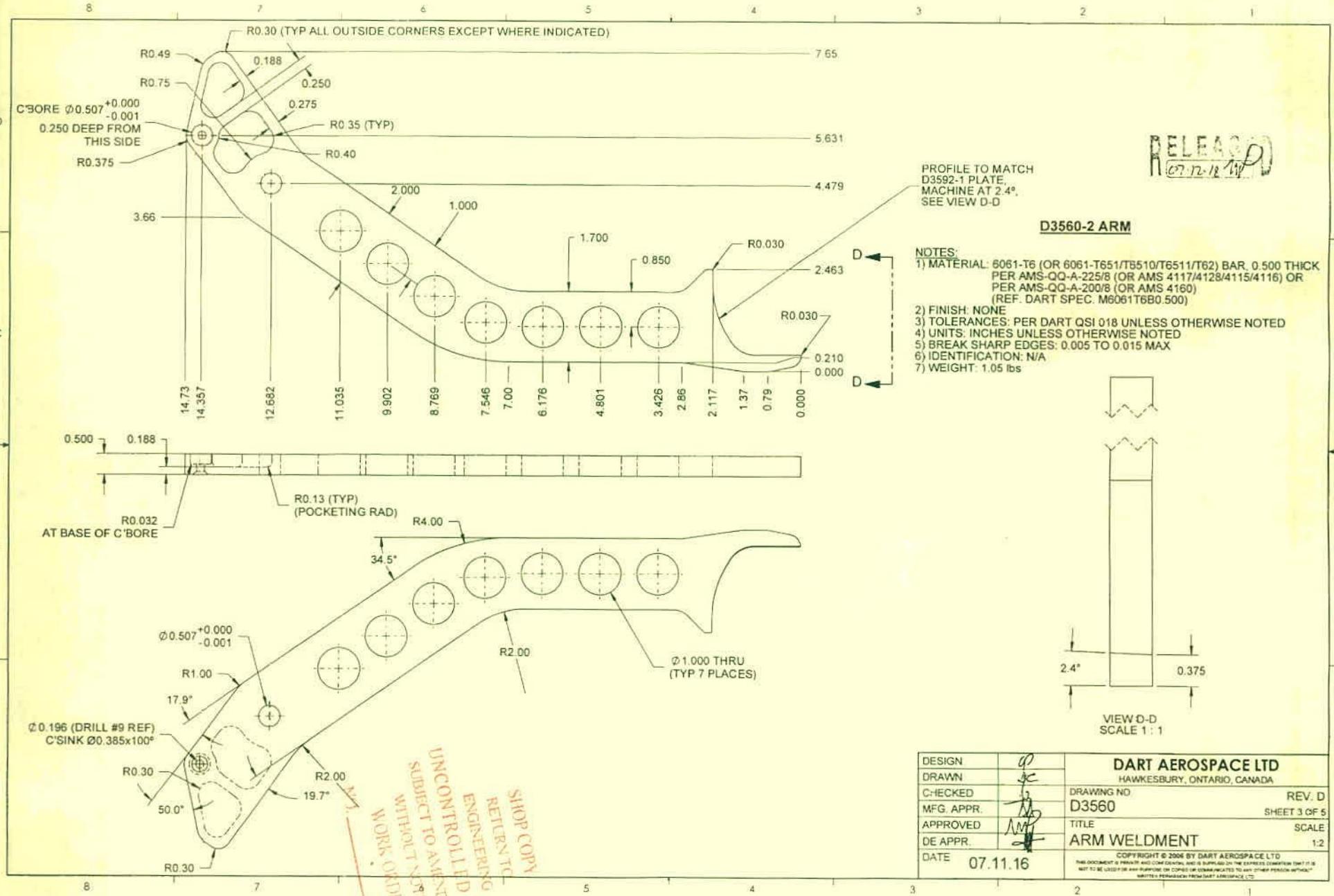
NOTES:

- MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK PER AMS-QQ-A-225/6 (OR AMS 4117/4128/4115/4116) OR PER AMS-QQ-A-200/8 (OR AMS 4160) (REF. DART SPEC. M6061T6B0.500)
- FINISH: NONE
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- IDENTIFICATION: N/A
- WEIGHT: 1.05 lbs

DESIGN	9	DART AEROSPACE LTD
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO
MFG. APPR.		D3560
APPROVED	MD	REV. D
DE APPR.	MD	SHEET 2 OF 5
DATE	07.11.16	TITLE
		ARM WELDMENT
		1.2

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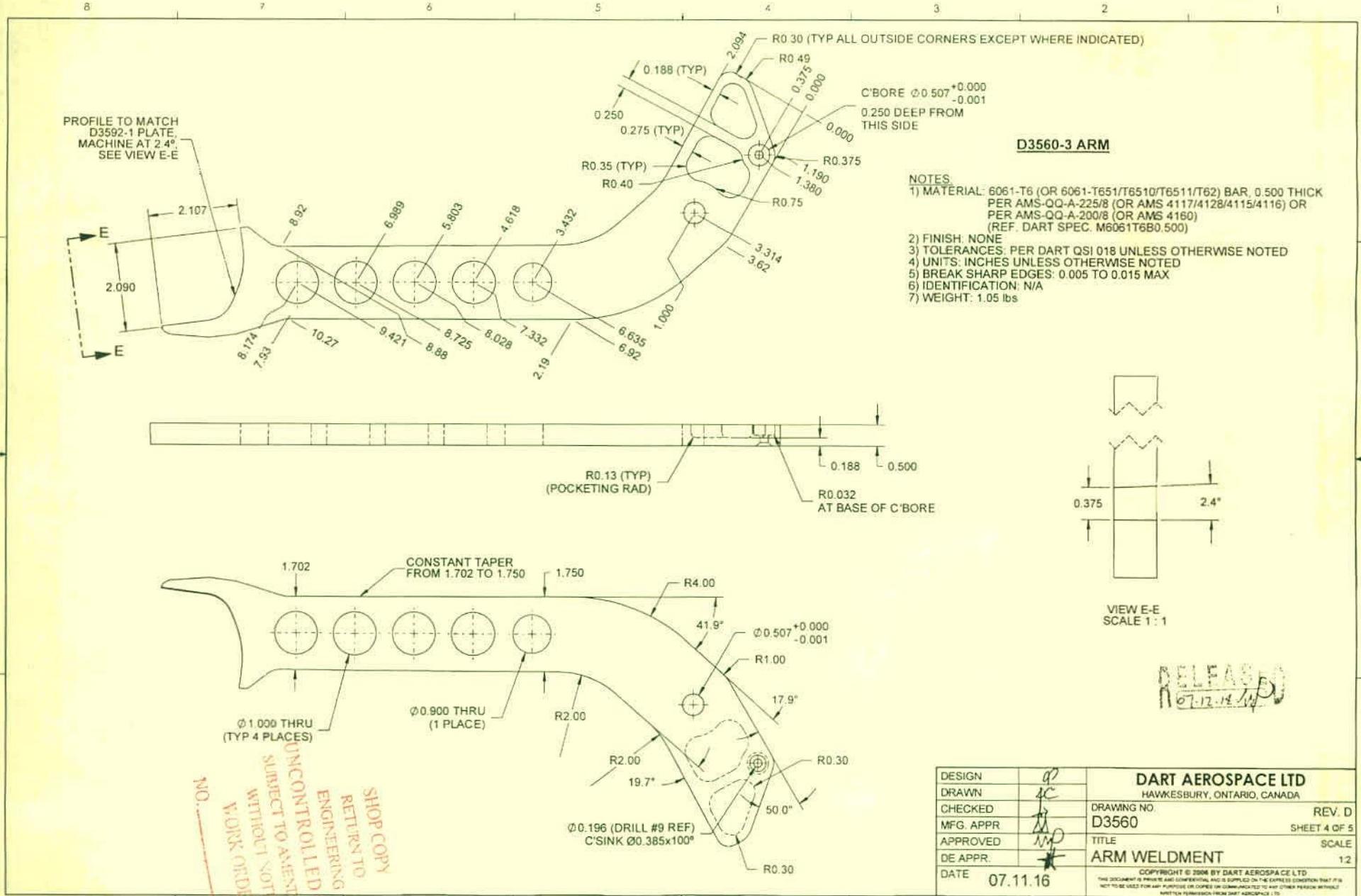




DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD
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CHECKED	<i>[Signature]</i>	DRAWING NO.
MFG. APPR.	<i>[Signature]</i>	D3560
APPROVED	<i>[Signature]</i>	REV. D
DE APPR.	<i>[Signature]</i>	SHEET 3 OF 5
DATE	07.11.16	SCALE
		1:2
		ARM WELDMENT
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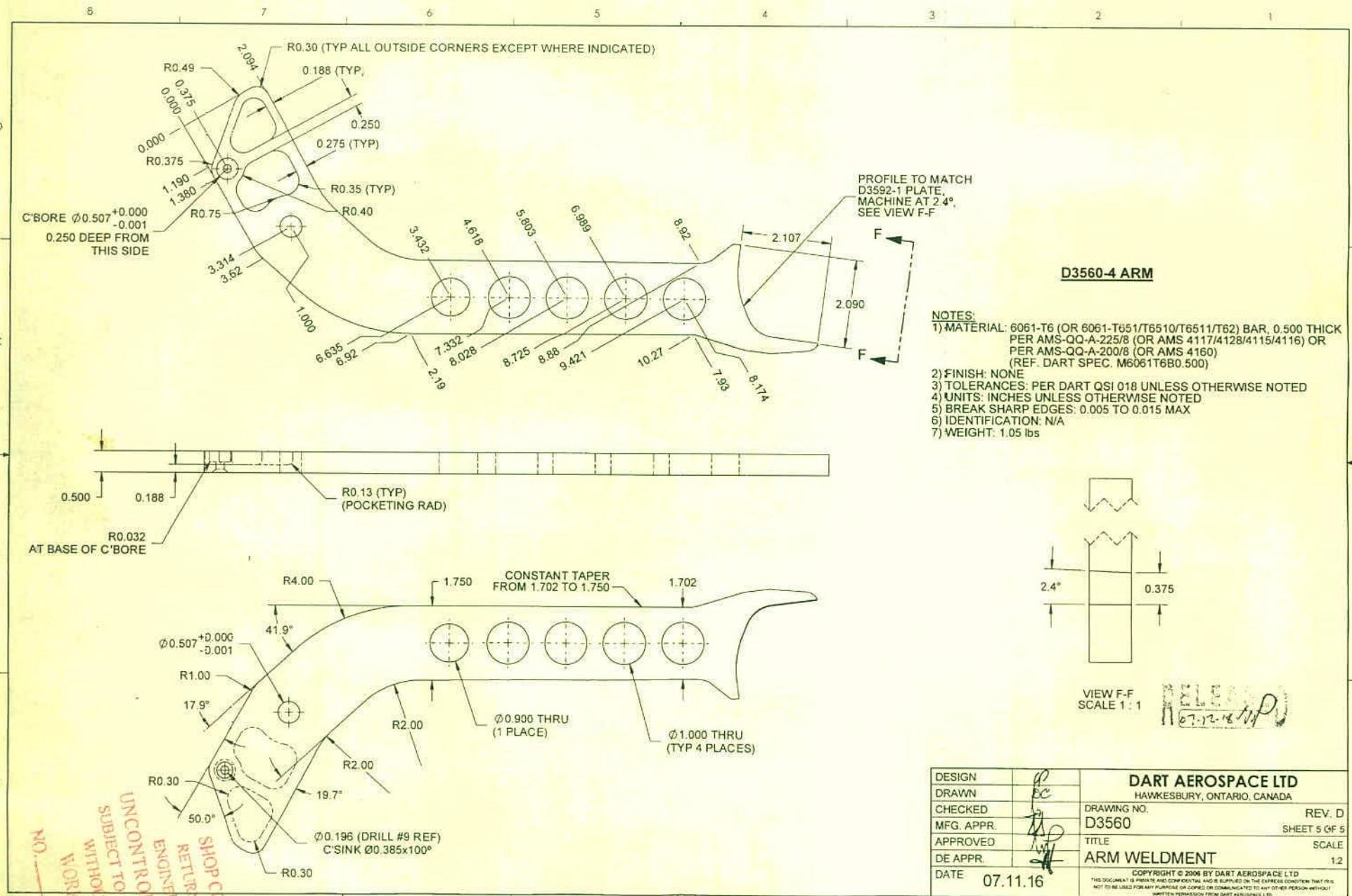


DESIGN	02	DART AEROSPACE LTD
DRAWN	4C	HAWKESBURY, ONTARIO, CANADA
CHECKED		REV. D
MFG. APPR		DRAWING NO. D3560
APPROVED		SHEET 4 OF 5
DE APPR.		TITLE ARM WELDMENT
DATE	07.11.16	SCALE 12

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MJD





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